

REMARKS

Claims 1-29 remain pending in the instant application. All claims presently stand rejected. Claims 1, 7, 9, 15, 19, 20 and 25 are amended herein. Claims 8 and 30-33 are canceled. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1-7, 15-18 and 20-33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Long et al. (US 5,325,519). Applicants respectfully traverse the rejections.

A claim is anticipated only if each and every element of the claim is found in a single reference. M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the claim.” M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)).

Example independent claim 1 of the instant patent application as presently amended expressly recites:

1. A method, comprising:
 - loading a virtual machine monitor into a system memory;
 - using the virtual machine monitor as a proxy agent for firmware and an operating system runtime and installation to a data storage unit (DSU) coupled to the system memory, wherein the DSU and the system memory are included on a same hardware platform;
 - using the virtual machine monitor to intercept a request to write new data to a location on the DSU;
 - using the virtual machine monitor to save a copy of old data currently residing at the location on the DSU to enable restoration of the old data to the location on the DSU; and
 - using the virtual machine monitor to write the new data to the location on the DSU.

Thus, independent claim 1 as presently amended expressly recites a method that includes loading a virtual machine monitor (“VMM”) into a system memory and using the VMM as a proxy agent for firmware and an operating system (“OS”) runtime and installation to a data storage unit (DSU) coupled to the system memory, wherein the DSU and system memory are included in a same hardware platform. *Long* is directed to a fault tolerant computer with archival rollback capabilities. *Long* fails to disclose at least the above limitation in amended claim 1.

Consequently, *Long* fails to disclose each and every element of claim 1, as required under M.P.E.P. § 2131. Independent claims 15 and 20 include similar novel elements as independent claim 1. Accordingly, Applicants request that the instant §102 rejections of claims 1, 15 and 20 be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Claims 9-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Long* in view of US Patent No. 6,016,553 to Schneider et al (“*Schneider*”). Claims 8 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Long* in view of US Publication No. 20040172574 to Wing et al (“*Wing*”).

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. § 2143.03.

Example independent claim 9 of the instant patent application as expressly amended recites:

9. A method, comprising:
 - loading a virtual machine monitor into a system memory;
 - using the virtual machine monitor as a proxy agent for firmware and an operating system runtime and installation to a data storage unit (“DSU”) coupled to the system memory, wherein the DSU and the system memory are included on a same hardware platform;*
 - using the virtual machine monitor to intercept a request to write new data to a first location on the DSU;*
 - using the virtual machine monitor to save the new data to a second location different from the first location; and*
 - leaving old data currently stored at the first location to enable rollback of the DSU to a previous state.*

Emphasis added. *Long* is directed to a fault tolerant computer with archival rollback capabilities. *Schneider* is directed to a method for saving using and recovering data. *Wing* is directed to fault tolerant networks. Neither *Long*, *Schneider* or *Wing*, whether taken singularly or in combination disclose, teach or even fairly suggest the limitations summarized above as expressly recited in the Applicant’s presently claimed invention. In particular, neither *Long*, *Schneider* nor *Wing*, whether taken singularly or in combination, disclose, teach or even fairly suggest a method that includes loading a virtual machine monitor (“VMM”) into a system memory and using a VMM as a proxy agent for firmware and an operating system runtime and installation to a data storage unit (DSU) coupled to the system memory, wherein the DSU and the system memory are included on a same hardware platform.

The Examiner, in rejecting claims 8 and 19, alleges that *Long* teaches the limitations of previous claims 8 and 19 except for explicitly disclosing a VMM. The Examiner cites

paragraphs [0104] and [0175] of *Wing* as teaching the execution of the OS within a virtual machine and proxying access to the DSU with a virtual machine monitor.

Applicants respectfully disagree. Although in paragraph [0175], *Wing* describes various virtual machines as providing snapshots of the protected server, Applicants have not found any other function of a virtual machine monitor given, except to detect a pre-defined failure event related to a server 20 being logically connected to a network 12. [0104]. This is distinct from a virtual machine monitor serving as a proxy agent to a DSU.

Even if the Examiner's characterization were correct, which Applicants do not concede, there is no motivation to combine the references because *Wing* actually **teaches against** the combination as in presently amended claim 9.

As discussed above, *Wing* is directed to recovery systems and methods for sustaining the operation of a plurality of networked computers (20a, 20b) in the event of a fault conditions. The basic recovery system in *Wing* comprises a plurality of virtual machines (31a, 31b) installed on a recovery computer (30), each virtual machine being arranged to emulate a corresponding networked computer, and the recovery computer being arranged, in the event of a detected failure of one of the networked computers, to activate and use the virtual machine which corresponds to the failed networked computer (20). The recovery computer (30) may be located on the same network (12) as the networked computers (20), or alternatively on a remotely located local network in case of failure of the entire local network.

There is no motivation to modify *Wing* to arrive at the invention of amended claim 9 because the present invention includes loading a virtual machine monitor into a

system memory and then using the virtual machine monitor as a proxy agent ...wherein the DSU and the system memory are included on a **same** hardware platform. As described above, *Wing* is directed to virtual machines on a **separate recovery computer** from a network computer in case the network computer fails. Therefore, to include the virtual machine or a virtual machine monitor intended to intercept read/write requests to a DSU on the same hardware platform as the DSU would change the basic principle of operation of *Wing* because not only would the old and the new data be stored in the same location (DSU) but the mechanism for storing backup data (by using a virtual machine monitor) and the storage device (DSU) would be located on the same hardware platform, rather than on separate computers, at separate locations, changing the principle of operation where several server computers are backed up on a separate recovery computer disclosed in *Wing* and described in Figures 1-8.

Consequently, the combination of *Long* and *Wing* fail to teach or suggest all elements of claim 9, as required under M.P.E.P. § 2143.03. Accordingly, Applicants request that the instant §103(a) rejections of claim 9 be withdrawn.

The dependent claims are novel and nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant §102 and §103 rejections of the dependent claims be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

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Linda S. Zacharian
Reg. No. 48, 057
Phone: (206) 292-8600